

ABSTRACT OF THE DISCLOSURE

In a system in which an image input apparatus and image forming apparatus are directly connected, the operation of the image input apparatus may stop during the operation of the image forming apparatus. The performance between the apparatuses is unbalanced, and the total throughput is low. According to this invention, in a system in which a plurality of apparatuses are connected via a serial bus, an apparatus having the node ID = 0 upon bus reset in connection calculates a time required for each process in each apparatus for a plurality of processes forming a series of image processes. For a plurality of patterns (process roots) for distribution of image processing between the apparatuses, the processing time is calculated for each pattern. A series of image processes are executed based on a distribution pattern exhibiting the shortest time. In the image input apparatus, the format of image data to be transferred is switched in accordance with the empty state of a buffer in the image output apparatus. This enables efficient image forming processing in the system to increase the total throughput.

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